

Pengaruh Perasan Buncis (*Phaseolus Vulgaris*) Terhadap Penurunan Kolesterol Darah Tikus Wistar

By SAPTO YULIANI

PENGARUH PERASAN BUNCIS (*Phaseolus vulgaris*) TERHADAP PENURUNAN KOLESTEROL DARAH TIKUS WISTAR

THE EFFECT OF WATER EXTRACTION OF FRENCH BEAN TO DECREASING OF CHOLESTEROL LEVEL ON WISTAR RAT

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Abstrak

Berdasarkan penelitian terdahulu diperoleh hasil bahwa pemberian perasan buncis dosis 16,7 g/kgBB dapat menurunkan kadar kolesterol total serum tikus percobaan setelah diberi diet kolesterol tinggi. Penelitian ini bertujuan untuk mengetahui pengaruh pemberian perasan buncis yang dilakukan bersamaan dengan pemberian diet kolesterol tinggi terhadap kadar kolesterol serum total tikus jantan galur Wistar selama 1 bulan dan 2 bulan. Sebanyak 20 ekor tikus jantan galur Wistar, berat 205-252 g dibagi secara acak menjadi 4 kelompok. Kelompok I hanya diberi diet standar saja, kelompok II diberi diet kolesterol tinggi saja, kelompok III diberi diet kolesterol tinggi dan perasan buncis dosis 16,7 g/kg BB dan kelompok IV diberi diet kolesterol tinggi serta simvastatin dosis 0,9 mg/kg BB. Kadar kolesterol total serum diamati pada semua tikus setelah 1 bulan (periode I) dan 2 bulan (periode II) perlakuan dengan menggunakan metode enzimatik Fotometric test CHOD-PAP (Cholesterol Oxidase Phenol Aminoantipyrin). Sebagai data pendukung dihitung jumlah asupan pakan setiap hari serta penimbangan berat badan yang dilakukan setiap minggu. Data kadar kolesterol serum pada masing-masing periode serta data rata-rata peningkatan berat badan setiap minggu dianalisis statistik dengan Kruskal-Wallis test yang dilanjutkan dengan Mann-Whitney test. Data rata-rata asupan pakan selama 2 bulan dibandingkan secara deskriptif dengan data rata-rata kadar kolesterol serum. Berdasarkan hasil penelitian dapat disimpulkan bahwa pemberian perasan buncis dosis 16,7 g/kgBB selama 1 bulan bersamaan dengan pemberian diet kolesterol tinggi dapat menurunkan secara bermakna kadar kolesterol serum tikus percobaan meskipun tidak mencapai kadar normal, sedangkan pemberian selama 2 bulan tidak dapat menurunkan secara bermakna kadar kolesterol darah tikus percobaan. Peningkatan jumlah asupan pakan setiap hari ternyata tidak mempengaruhi peningkatan kadar kolesterol dari masing-masing kelompok, demikian juga peningkatan berat badan setiap minggu tidak selalu diikuti dengan peningkatan kadar kolesterolnya.

Kata kunci : Buncis, kolesterol

Abstract

The result of the previous study show that giving water extraction of french beans 16,7 g/kg BW in dosage, could decrease total cholesterol level in serum animal test induced by a high cholesterol diet. The objective of the study was to discover the effect of water extraction of french beans and high cholesterol diet that were given simultaneously on the total cholesterol in a male Wistar rat after 1 month and 2 months. Twenty male Wistar rats, weighing 205-252 grams, were divided randomly into 4 groups. Group I was given a standard diet, group II was given with a high cholesterol diet, group III was given a high cholesterol diet and french bean water extract 16,7/kg BW in dosage, group IV was given a high cholesterol diet and Simvastatin 0,9 g/kg BW. Total cholesterol levels were observed after 1 month (first period) and 2 months (second period) by enzymatic photometric test. Feeding intakes were observed daily and body weights were observed weekly. Dates of total cholesterol levels and average weekly increases of body weight were statistically analyzed by the Kruskal-Wallis test followed by the Mann-Whitney test. Dates of average of feeding intakes were compared descriptively with total cholesterol levels. The result of this research could be concluded that simultaneously giving water extraction of french beans 16,7 g/kg BW and a high cholesterol diet could significantly decrease the total cholesterol levels although not the normal level. Increasing of daily feeding intake was not affected by increasing of total cholesterol level in each group. And increasing of weekly body weight was not followed by increasing of total cholesterol level.

Key word : french beans, cholesterol

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